

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The references cited in the Search Reports dated May 24, 2005 and February 22, 2008 have been considered.

### ***Priority***

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on February 6, 2004. It is noted, however, that applicant has not filed a certified copy of the JP 2004-030288 application as required by 35 U.S.C. 119(b).

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 8, the term "using" is indefinite. A "process" defined in the sole terms of "use of" does not define patentable subject matter under 35 USC 101. See *In re Fong*, 129 U.S.P.Q. 264 (CCPA 1961). The examiner suggests the term "utilizing" in place of the term "using" to overcome this rejection. See MPEP 2173.05(q).

**Double Patenting**

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thornton*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 6-11 and 15-17 of copending Application No. 11/184,992 (US 2006/0016368). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application overlap said copending claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

7. Claims 1-11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 4 and 5 in view

of paras. 0039-0040, paras. 0083-0084 and dyes g-1 thru g-4 of the specification of copending Application No. 11/392,487 (US 2006/0272544). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application overlap said copending claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicants should note that those portions of the specification, which provide support for the patent claims, may also be examined and considered when addressing the issue of whether a claim in the instant application defines an obvious variation of the claims of Miyamoto et al. See *In re Vogel*, 422 F.2d 438, 441-442, 164 USPQ 619, 622 (CCPA 1970) and MPEP 804 (II)(B)(1).

8. Claims 1-3 and 7-11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 4-6, 8, 9, 11, 12 and 14 of U.S. Patent No. 6,878,196. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application overlap said patent claims and would be obvious thereby.

9. Claims 1-4 and 11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 6,923,855. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application overlap said patent claims and would be obvious thereby.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

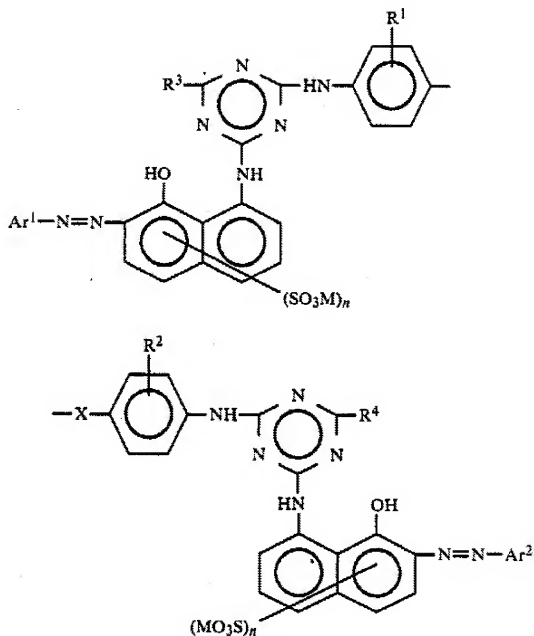
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimada et al. (US 4,737,190).

Shimada et al. teach an aqueous inkjet ink composition comprising an aqueous solution of an azo dye of the formula

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wherein  $\text{R}^1$  and  $\text{R}^2$  each represent H, an alkyl group, an alkoxy group, halogen, a carboxyl group or a sulfonic acid group;  $\text{R}^3$  and  $\text{R}^4$  each represent a hydroxyl group;  $\text{X}$  represents  $\text{-O-}$ ,  $\text{-CH}_2\text{-}$ ,  $\text{-C}_2\text{H}_4\text{-}$ ,  $\text{-CH=CH-}$ ,  $\text{-S-}$ ,  $\text{-SO}_2\text{-}$  or a bond;  $\text{Ar}^1$  and  $\text{Ar}^2$  each represent an unsubstituted or substituted phenyl group or an unsubstituted or

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substituted naphthyl group; M represents H, an alkali metal atom, amine cation or ammonium ion and n is an integer of 1, 2 or 3. Shimada et al. further teach a process for printing comprising ejecting the above inkjet ink composition onto a substrate. See col. 2, lines 9-53, Table 1, examples 1-5 and claims 1 and 8. The azo dye and the inkjet ink composition as taught by Shimada et al. appear to anticipate the present claims.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

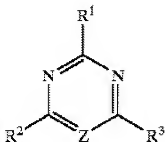
13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 1-3 and 7-11 are rejected under 35 U.S.C. 103(a) as being obvious over Harada et al. (US 6,878,196).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Harada et al. teach an ink jet ink composition comprising an aqueous medium and at least one dye of the formula (1)

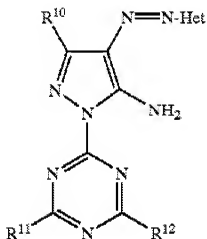
formula (1)



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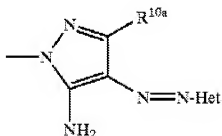
wherein  $R^1$ ,  $R^2$  and  $R^3$  are each independently H or a monovalent group; Z is a nitrogen atom or a carbon atom to which H or a monovalent group is bonded and at least one of  $R^1$ ,  $R^2$ ,  $R^3$ , and the monovalent group that Z has is a substituent having a heterocyclic group substituted with an azo group. The dye is preferably of the formula (3)

formula (3)



wherein  $R^{10}$  is H, an alkyl group, a cycloalkyl group, an aralkyl group, an alkoxy group or an aryl group;  $R^{11}$  is H, a halogen atom, a hydroxyl group, an alkoxy group, an amino group, a sulfo group or a heterocyclic group; Het is an aromatic heterocyclic group such as a thiadiazole (i.e. applicants formula (A));  $R^{12}$  is H, a halogen atom, a hydroxyl group, an alkoxy group, an amino group, a sulfo group, a heterocyclic group, or a group represented by the formula (3-1)

formula (3-1)





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wherein R<sup>10a</sup> is H, an alkyl group, a cycloalkyl group, an aralkyl group, an alkoxy group or an aryl group; and Het is an aromatic heterocyclic group such as a thiadiazole (i.e. applicants formula (A)). Harada et al. further teach a process for printing comprising ejecting the above inkjet ink composition onto a substrate and an ink sheet, a color toner and a color filter comprising the above inkjet ink. See col. 3, line 42 – col. 7, line 32, col. 12, lines 36-45, col. 18, line 35 – col. 22, line 20, col. 25, lines 64-66, col. 32, lines 31-57, col. 33, line 55 – col. 34, line 5, examples 1-9 and claims 1, 2, 4-6, 8, 9, 11, 12 and 14. Harada et al. fail to specifically exemplify the use of a dye of the formula (3) wherein R<sup>11</sup> is a hydroxyl group as claimed by applicants.

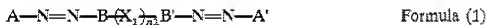
Therefore, it would have been obvious to one having ordinary skill in the art to use the specific dye of the formula (3) wherein R<sup>11</sup> is a hydroxyl group as claimed by applicants as Harada et al. also discloses the use of these dyes but fails to show an example incorporating them.

15. Claims 1 and 4-11 are rejected under 35 U.S.C. 103(a) as being obvious over Harada et al. (US 6,923,855).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed

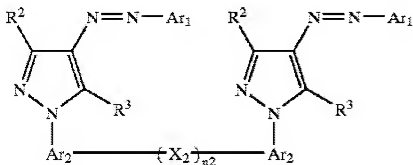
in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Harada et al. teach an ink jet ink composition comprising an aqueous medium and at least one dye of the formula (1)



wherein A and A' each independently represent an aryl group or a monovalent heterocyclic group; B and B' each independently represent an arylene group or a divalent heterocyclic group; X represents a divalent linking group; n1 is an integer of 0 or 1 and at least one of A, B, A' and B' is a heterocyclic group. The dye represent by formula (1) is preferably of the formula (2) or (3):

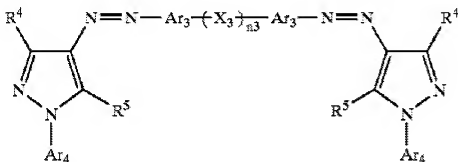
Formula (2)



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wherein  $R^2$  represents a monovalent group;  $R^3$  represents  $-OR^6$  or  $-NHR^7$ ;  $R^6$  and  $R^7$  each represent H or a monovalent group;  $X_2$  represents a divalent linking group,  $n_2$  is an integer of 0 or 1;  $Ar_1$  represents an aryl group or a heterocyclic group such as a thiadiazole and  $Ar_2$  represents an alkylene group, an arylene group or a divalent triazine group that may have a monovalent substituent;

Formula (3)



wherein  $R^4$  represents a monovalent group;  $R^5$  represents  $-OR^6$  or  $-NHR^7$ ;  $R^6$  and  $R^7$  each represent H or a monovalent group;  $X_3$  represents a divalent linking group,  $n_3$  is an integer of 0 or 1;  $Ar_3$  represents an aryl group or a heterocyclic group such as a thiadiazole and  $Ar_4$  represents an alkylene group, an arylene group or a divalent triazine group that may have a monovalent substituent. Harada et al. further teach a process for printing comprising ejecting the above inkjet ink composition onto a substrate and an ink sheet, a color toner and a color filter comprising the above inkjet ink. See col. 3, line 40 – col. 5, line 30, col. 6, lines 45-52, col. 10, line 51 – col. 11, line 1, dyes 19-35 and 58, col. 33, line 54 – col. 34, line 13, col. 38, lines 26-28, col. 41, lines 1-6, col. 42, lines 6-35, examples 1-10 and claims 1-9. Harada et al. fail to specifically exemplify the use

of a dye of the formulas (2) or (3) wherein the  $Ar_2$  or the  $Ar_4$  group is a divalent triazine group substituted with a hydroxyl group as claimed by applicants.

Therefore, it would have been obvious to one having ordinary skill in the art to use the specific dye of the formulas (2) or (3) wherein the  $Ar_2$  or the  $Ar_4$  group is a divalent triazine group substituted with a hydroxyl group as claimed by applicants as Harada et al. also discloses the use of these dyes but fails to show an example incorporating them.

### ***Conclusion***

The remaining references listed on forms 892 and 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the above rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Klemanski whose telephone number is (571) 272-1370. The examiner can normally be reached on Monday-Friday 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Helene Klemanski/  
Primary Examiner, Art Unit 1793